

protein or subsequence comprising at least one epitope of at least one of said isolated proteins.

Please add the following new claims:

19 (new). The protein of claim 5 where said variant protein has an identity of at least 90% to at least one of said isolated proteins.

20 (new). The protein of claim 5 where said variant protein has an identity of at least 95% to at least one of said isolated proteins.

21 (new). The protein of claim 5 where said variant protein has an identity of at least 98% to at least one of said isolated proteins.

22 (new). The protein of claim 5 where said subsequence is at least 10 amino acids in length.

23 (new). The protein of claim 5 where said subsequence is at least 15 amino acids in length.

24 (new). The protein of claim 5 where said subsequence is at least 20 amino acids in length.

25 (new). The protein of claim 5 where said subsequence is at least 30 amino acids in length.

26 (new). The protein of claim 5 where said protein comprises an epitope recognized by the polyclonal antibody PAB150.

27 (new). The protein of claim 5 which comprises at least two Gly-Gly-Ala-Ile motifs.

28 (new). The protein of claim 5 which comprises at least three Gly-Gly-Ala-Ile motifs.

29 (new). The protein of claim 5 which comprises at least four Gly-Gly-Ala-Ile motifs.

30 (new). The protein of claim 5 which comprises a Phe-Tyr-Asp-Pro-Ile motif.

31 (new). The protein of claim 5 whose amino acid sequence comprises at least two tryptophans which each correspond to a

tryptophan identified as conserved in Figs. 8A-8J.

32 (new). The protein of claim 5 whose amino acid sequence comprises at least four tryptophans which each correspond to a tryptophan identified as conserved in Figs. 8A-8J.

33 (new). The protein of claim 5 comprises an amino acid sequence identical to the region from amino acid 400 to 490 of at least one of said isolated proteins.

34 (new). A non-naturally occurring or isolated protein or peptide which is (i) an isolated protein derived from *Chlamydia pneumoniae* having the amino acid sequence selected from the group consisting of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, SEQ ID NO:18, SEQ ID NO:20, SEQ ID NO:22, and SEQ ID NO:24, said protein being free of any other chlamydial protein, or (ii) a variant protein comprising at least two Gly-Gly-Ala-Ile motifs, or (iii) a peptide or protein which consists of an amino acid sequence which is a subsequence, at least 6 amino acids in length, of at least one of said isolated proteins, said variant protein or subsequence comprising at least one epitope of at least one chlamydial outer membrane protein.

35 (new). The protein of claim 34 in which at least one epitope is an epitope of at least one of said isolated proteins.

36 (new). The protein of claim 35, where said variant protein comprises at least three Gly-Gly-Ale-Ile motifs.

37 (new). The protein of claim 35, where said variant protein comprises at least four Gly-Gly-Ale-Ile motifs.

38 (new). The protein of claim 35 where said variant protein further comprises a Phe-Tyr-Asp-Pro-Ile motif.

39 (new). The protein of claim 35 where said variant protein comprises a subsequence, at least 10 amino acids in length, which is identical to a subsequence of at least one of said isolated protein.

40 (new). The protein of claim 35 where said variant